

FOREIGN GOSSIP.

The enormous indemnity France paid Germany raised its debt to \$6,000,000,000.

Hereafter English soldiers will not be allowed to smoke in the streets in the daytime.

The Princess of Wales' stables cost him over eighty thousand dollars a year. The Princess loves dogs. She has over eighty.

The four most important towns of Australasia are now Melbourne, population 282,947; Sydney, 224,211; Adelaide, 103,864; and Auckland, 60,000.

The fall of a meteor on ice was lately witnessed on the coast of Norway, a hole a foot and a half in diameter being made through eight inches of ice.

A Hebrew in Persia died lately at the given age of one hundred and seventeen years. The *Kremlen* reports that he had been arranging to marry for the ninth time shortly before his death.

A study of six hundred and fifty Italian thunder-storms has shown Signor Ferri that every thunder-storm is bound to a depression of barometer and hygrometer, and before one of the thermometer.

A pearl that is declared the largest in Europe was sold in London lately for three thousand one hundred and fifty dollars. It was two inches long and four inches in circumference, and weighed three ounces.

Experiments in Austrian garrisons prove that when the flowers of barracks are printed with the collector of dust in cracks is prevented, and there is a consequent diminution in irritative diseases of the eye. There is also a great diminution of parasites.

Tarsus, in Asia Minor, is the terminus of a new railway crossing that country. A section of the road has just been officially inaugurated with a jubilee and a free excursion to the nobles. The Arab dignitaries, however, generally preferred to stick to their camels.

An experiment to test the speed of the swallow's flight has just been made at Pavia. Two hen birds were taken from their broods, carried to Milan, and there released at a given hour. Both made their way to the coast in thirteen minutes, which gave their rate of speed at eighty-seven and a half miles an hour.

The London *World* says that on Fatti's return to London she found awaiting on her table several pale blue velvet boxes from Lady and Mr. Alfred de Rothschild, the first one containing a brooch about two inches long, representing two large panthers in white brilliants, with nine big blood-red rubies in it; heart all diamonds, and a large ruby in the middle, goes with the brooch; a cigar-box of violet leather, with an inlaid gold frame, and on one side "M. Ernest de Rothschild," and on the other, "From Mr. Alfred de Rothschild," both names all in diamonds and rubies; and sundry other trifles in gold and silver.

THE PROOF-READER.

A Valiant Member of a Long-Abused Profession tries to Prove a Point.

The proof-reader has long shared with the "intelligent compositor" the reputation for that total depravity which has made a writer say "see the pale martyr with shirt on fire," when he wrote in "sheet of fire," and to ask "is there no barn in Guilford," when he meant "is there no balm in Gilead;" to speak of his love of "alum water" when he wrote "Alma Mater," and to speak of "a mysterious dispensation of Providence" when he wrote "a mysterious disappearance of provisions."

The silence of the proof-reader has been taken as evidence of his guilt, or that he was proof against reproval and as disposed to correct his own errors as those of the types. But he has evidently borne, and borne long enough, and he rises to "chuck back" the charges, and to "mail his to the counter," and to "thrust the base falsehoods down the throats of his cowardly vituperators," as the contributors to that popular periodical—the *Congressional Record*—are in the habit of saying. The worm has turned at last, and a rather lively turn it is.

He expresses his wonder to the editor of the Boston *Literary World* that nothing has ever been said in praise of proof-readers. Of course this might surprise a proof-reader, but any experienced writer for the press will not be astonished at it at all. The writer will know that he has time and time again written the most glowing eulogies of proof-readers and their assistants; tributes that statesmen might envy and good men crave. But the proof-reader has never allowed them to appear in print. Where the writer has said that the proof-reader is "a man of letters to his race," it has appeared "as a benighted scape-grace;" when he has called him the "salt of the earth" it comes to the surface as "the scum of the earth;" when he has spoken of the "ease and comfort" a good proof-reader gives him, he is made to say an "escaped convict," and when he has referred to the proof-reader's "saintly grace," the public first learns of him as a "snake-in-the-grass." That is why nothing has ever appeared in print in praise of the proof-reader.

This protesting proof-reader is not willing to believe that every one of his species is "full of malice toward man and hates the whole world." And then the man actually goes on to speak a good word for himself and his kind. At this rate the barber will be defending his talking; the mother-in-law will clamor for a hearing; the plumber will be pipping up in his own behalf; the Chinese laundryman claiming a right to live an honest and cleanly life; and turkeys speak their mind about Thanksgiving. What is the world coming to?

However, since the proof-reader has been graciously allowed to say that his soul's own, it is perhaps worth while, as a mild amusement, to hear how he puts the case. In the first place he says that an author intent on what he is writing, is necessarily careless about his hand-writing. He can not break the flow of his thoughts to dot his "i's" and cross his "t's." Each author has his own peculiar penmanship. The proof-reader takes up his manuscript, and tries to catch the purport of the author's thought. He has scarcely done so, when in comes another mass of proof and manuscript of an entirely different character and an entirely different pen; and a new thread has to be picked up until another interruption. This is not for a moment, but all day, all the week, all the year, all his life. After puzzling himself until he is half blind, his brain weary, and work pushing upon him incessantly, a letter may be left out or a comma inserted in the wrong place, when slam-bang goes a volley at the proof-reader! He has been conscientious, patient, worthy proof-reader, and critical and cruel; and an author who prints only, least something might have escaped their notice. He has seen an author send a proof-reader for some trifling oversight

when a name day the proof-reader had corrected an historical blunder which would have cost the author dearly had it seen the light. He has seen an author brag of his penmanship, and when his manuscript has been sent to him, because it was unreadable, he himself was scarcely able to decipher it.

Indeed it would not be surprising to see a proof-reader's union formed, the members of which should take a solemn oath to ruin authors by letting the world see their blunders and inaccuracies. For the wrongs of the long-suffering proof-reader are many, his grievances great.—*Detroit Free Press.*

LIGHTNING STROKES.

A Plausible Explanation of the Remarkable Increase of Thunder-Storms.

The researches of Prof. von Petzold, Karsten, Weber and others have proved that the number of damaging strokes of lightning has considerably increased during the last fifty years, and this increase can not be explained by the theory that, owing to the growing number of houses, factories, etc., the number of lightning strokes increased proportionately; to the contrary, this number ought to decrease, as every building, even when not protected by a lightning-rod, effects an equilibrium of the opposite electric potentials, and therefore the number of lightning strokes ought relatively to decrease with the relative number of buildings. This, indeed, is proved by the fact that in the space of one year among one hundred thousand buildings there occurred but thirteen cases of lightning stroke in cities, against twenty-three strokes on buildings in the country. We, therefore, have to take this natural phenomenon from another point of view, and to consider the ratio of damaging or other strokes to the number of buildings in a certain district. This ratio, called by the German naturalists *blitzgefahr* (danger from lightning), increased in the kingdom of Bavaria from 1844 to 1882 three-fold (according to records of insurance companies even five-fold), and other countries show the same increase.

As in nature each phenomenon must have its cause, the question arises: To what cause is the above-mentioned facts? And this question not only is of scientific interest, but also of great practical importance. A great many theories have already been advanced to explain this phenomenon; among others, that, owing to the decrease of the woodlands, there are more and more made the projecting points of a certain area, and therefore attract the lightning; besides, this decrease effects a greater rise in temperature in summer, and, in consequence, more numerous thunder-storms. Others find the cause of it in the large increase of such constructions as gas and water works, weather-cocks, etc. But this theory does not explain why, especially country houses, which commonly lack these kind of constructions, are mostly exposed to danger from lightning. Admitting that these causes may in some degree explain the increase of danger from lightning, they are not sufficient to fully show the surprising increase of strokes during so short a period. There must be a more general and fundamental cause.

Through what can the electrical intensity during a thunder-storm be the main cause of that a large number of lightning strokes pass over to the earth than was the case heretofore? It is not so much the increasing number of thunder-storms as their greater force which produced the danger. As the main cause we now point out the enormous increase in the last fifty years of factories, railroads, steamboats—in short, of all constructions filling the atmosphere with smoke, vapors, particles of dust of every description. When we consider that every day thousands of locomotives, thousands of steamers go around the earth; that thousands of factories of all kinds emit enormous quantities of smoke, vapor and dust into the air; that, especially in cities, the large number of houses produce immense quantities of smoke and dust, the assertion will not seem incredible that there is certainly one hundred times the smoke, dust and gases absorbed in the atmosphere than there was fifty years ago. Already with the naked eye the impure state of the atmosphere may be noticed. Go through the coal districts of Manchester, England, through those of Pennsylvania, through the city of Pittsburgh, and you will notice a layer of vapor constantly hovering over them; the air is filled with foul gases, and every object is more or less covered with the settling particles of dust.

The conditions being established, we have to consider their relations to the violence of thunder-storms. To give the reader a better conception of this relation we will briefly discuss the theory of the thunder-storm and the origin of electricity thereby developed. Friction is now generally accepted to be the cause of the electricity in a thunder-storm. Friction between air and particles of ice (according to Luvine) or between air and molecules of water (according to Andrieux) is the main cause of that electricity. When besides these factors particles of dust are filling the atmosphere the development of electricity is highly increased. It is the ejection of steam and ashes common to the phenomenon which causes the thunder-storms tending it to assume an exceedingly violent character. That the pyramid of electricity is rendered electric by the whirling dust of the desert may here also be mentioned. It is nothing but the friction of the grains of sand on the surface of the pyramid that causes electricity to originate.

The author of this essay claims that the rapid, enormous and lasting development of electricity during a thunder-storm can not be otherwise explained than by a purely mechanical cause analogous to the mechanical force of the hydro-electrical machine. Now, as our atmosphere contains so much more dust than in former years, the fact must be of great influence regarding the intensity of electrical phenomena during thunder-storms; from the same reasoning are explained volcanic eruptions. That this increased force of thunder-storms must manifest itself in the greater violence and more dangerous character of lightning strokes will be evident to the reader. But there is another fact that is not to be overlooked. It is established fact that air containing solid particles has a conducting power in regard to electric currents far superior to that of pure air. In our day, therefore, where these molecules of dust and solid particles fill the atmosphere to a greater extent, the latter has become a better conductor, and favors a section of the lightning strokes toward the more pure layers in the vicinity of the earth, and therefore the earth itself.—*Chicago Times.*

The New Jersey mosquito is larger and thirstier than ever this year.

WHEN INDIANS LAUGH.

A Custom That is Strictly Observed Among the Redskins of the West.

Some Indian school-boys found their teacher had a very great aversion to frogs. To them it was a continual source of amusement to see her run away from them. One day a boy caught one, and shut it up in the table drawer. The teacher entered the room. All were in order; but when she opened the drawer the frog, glad to gain its liberty, leaped out upon the table, and the teacher made a great ado. One of the boys, in a gentlemanly way, took up the frog, carried it to the door and threw it out. No sign of enjoyment could be discerned in their faces. They remained through school hours retaining their dignity. Afterward, when they were in the laughing until the tears came, laughed over and over again as they remembered the dismay of the teacher. Why did they not laugh at first? They had not yet come into the ways of white men enough to realize that we would consider rudeness in our pupils, even under these circumstances, and they considered it rude to laugh aloud, or to laugh at the expense of another in the other's presence.

An old woman who owned a poor old pony which was almost dead from starvation and hard work, had bought the pony in a fair and honest manner. She was literally "skin and bones." While I was in the house I heard the woman making a great outcry, and I ran to the door just in time to see an immense flock of crows fly away. I said: "What is the matter?" She replied that the crows and crows and crows were eating her pony's bones while he still lived. She saw the funny side of it as well as I, and laughed very heartily. When one of the young lady missionaries asked an Indian woman for her "Wakies tanka," no one laughed till the teacher was gone. When I inquired why the Indian was not given, the reply was she did not ask for the dish-pan, she asked for "the great evil spirit" (the devil), and I assure you no Indian woman hears that story without laughing heartily. Another teacher meaning to ask for a book asked for the above-mentioned facts. And this question not only is of scientific interest, but also of great practical importance. A great many theories have already been advanced to explain this phenomenon; among others, that, owing to the decrease of the woodlands, there are more and more made the projecting points of a certain area, and therefore attract the lightning; besides, this decrease effects a greater rise in temperature in summer, and, in consequence, more numerous thunder-storms. Others find the cause of it in the large increase of such constructions as gas and water works, weather-cocks, etc. But this theory does not explain why, especially country houses, which commonly lack these kind of constructions, are mostly exposed to danger from lightning. Admitting that these causes may in some degree explain the increase of danger from lightning, they are not sufficient to fully show the surprising increase of strokes during so short a period. There must be a more general and fundamental cause.

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fond of music and is therefore giving her daughter Nellie a very thorough musical training. There is little doubt that if Mrs. Gould were asked what she most desired in this world she would answer to have her husband relinquish all business and devote his time to home enjoyments with his family.—*Philadelphia Times.*

A ROYAL ARTIST.

The Crown-Princess of the German Empire and the Way She Works.

Having studied like a student, the Crown Princess now paints as an artist. The powers of the Princess Royal have long been acknowledged in Germany, upon the art of which country she has had great and lasting influence. In 1880 she was elected member of the Berlin Academy, where she has constantly exhibited. Painting admirably, as she does, in landscape, portraiture and still life, it is perhaps in her portraits that she excels. An artist may be an admirable draughtsman of the figure, he may have the finest technique and a true love of color; he may possess a perfect mastery of carnations (critics always talk a lot about carnations), and yet fall entirely in portraiture. The one essential thing is the instinct of the reading character and the power of seizing upon and depicting with the salient points in the expression of his sitter. That the Princess Royal possesses this gift may be seen by referring to our last illustration. Without knowing the lady, or even seeing her, the simple treatment of this picture, and the easy pose of this figure has been skillfully caught.

We believe that the Princess Royal has studied under Von Angeli for the figure and under Wilberg for landscape. It is perhaps possible to detect the influence of the former artist in the drawing of the "Portrait of a Lady." The house of Brandenburg has not the pleasure of the writer's acquaintance, (which is an instance that even Imperial rank can not gain on every advantage), so that he is unable to speak of the Princess Royal's methods of work, but he can say that the picture is a work of art, that she goes direct to nature. There is an air of sincerity and first-handness about the street scene in Pegg which convinces one that the work was faithfully drawn out of doors, and probably finished on the spot.

The third picture, "Perishableness," shows the same very cold and gloomy atmosphere, and there is an appreciation of just values in it which is very noticeable. Although this picture very well bears translation into black and white, we probably lose much by missing its rich and quiet color. We hope one day to see some of the royal painter's pictures in London, that English people may know that we have an artist of whom we may be proud in the person of a Princess whom we love.—*Magazine of Art.*

JAPANESE PRISONS.

Interesting Data Concerning the Penal Institutions of Japan.

The Prison Association of New York maintains a thorough system of correspondence on prison matters with all the civilized and semi-civilized countries of the world. It has just received from Mr. Tanekai Hara, its Japanese correspondent, a summary of the last annual report shows that there are two kinds of prisons: penitentiaries and jails. There are six large penitentiaries. One in Tokio with 1,508 prisoners, who work at brick-making; one at Miagi with 348 prisoners working in a slate quarry; one at Muke with 756 prisoners at work in coal mines; one in Kobatoeyo with 1,355 prisoners, and one in Koshirayez with 1,259, and one in Koshirayez with 190 prisoners. In the three last-named prisons the labor is utilized in the reclamation of waste lands. There is little attempt at the classification of prisoners, and from twenty-five to forty prisoners occupy each cell. Punishment is the chief thought of the authorities. The Japanese prison system is, however, superior to ours, in that prisoners are allowed some share in their surplus earnings.

Every effort is made to promote the health of the prisoners, in which respect there has been a great improvement in recent years. In all the penal institutions of Japan there are 66,039 prisoners, or rather less than two per cent of the population. Of this number, 3,000 are women. This would make it seem that Japan was much more given to law-breaking than the United States, where official records show but one person in 1,000 in the prisons. It must be remembered that so few offenses are regarded as crimes, and that in the simpler life of Japan more rogues are caught. There is also much allowance to be made for the fact that the average terms of imprisonment are much longer than with us. Out of every one thousand prisoners more than six hundred have been found guilty of one or more of the degrees and six degrees of murder. The "criminal age," as with us and with the countries of Europe, is from twenty to thirty-five, there being 705 prisoners out of every thousand between those ages. There is no attempt at moral instruction, in which the Japanese prisons are on a par with those of our country jails, in which there is systematic labor. Nearly all of the prisoners are entirely self-supporting, and are conducted with a degree of economy that some of our American prison managers might imitate with great advantage to the public.—*N. Y. Observer.*

Living Within One's Income.

The close observer can not fail to notice that the habits of our people are undergoing a decided change. We are no longer free-handed and careless, as of yore. We have known the bitterness of poverty, and we have known that economy is the surest means by which to grasp the power that belongs to wealth. This tendency is illustrated on the grand scale, in the case of our banks, which have in recent years pursued the policy of annually laying aside a portion of their profits. The result of this policy is seen in the condition of one of those institutions which has a reserve consisting of millions of dollars. Our people, rich and poor alike, are striving to live within their means. This, after all, is the fundamental fact of the situation.—*N. O. Times-Democrat.*

Three young men of Boston recently rode their bicycles from that city to New Orleans, a distance of one thousand seven hundred miles.

READING FOR THE YOUNG.

The theoretic started out to see the town; He caught a stop at a liberty-pole in the middle of the road.

"Now how, in the name of the sportsman, can I climb this perpendicular cliff, and get on the other side?"

"If I only could make a big balloon, I'd lightly over it fly; Or a very long ladder might reach the top, though it uses look fearfully high."

"If a beaver were in my place, he'd gnaw a passage in stone with his teeth. I can't do that, but I can dig a tunnel and pass beneath."

He was digging his tunnel, with might and main, when a door looked down at the hole.

"The easiest way, my friend," said he, "is to walk around the post. I'll show you."—*A. R. Wells, in St. Nicholas.*

A BOY HERO.

What Tommy Brown Did to Protect His Little Brother.

He was only six years old, little Tommy Brown. His father was a pioneer out in Oregon. (Look on the map, as always, and find Oregon, if you don't know where it is.) Pioneers have discomforts and privations that the people in older settlements do not dream of. They are often twenty miles away from any store. If anything has happened that they have not laid in a supply of meat, flour and meal, and these things give out at home, it becomes a very serious business. If the roads are snowed up, or if the mud is so deep as to make them impassable, there is a chance that the pioneer's family may go hungry; they may even starve. Provisions had given out in the family of Mr. Brown. There had been a deep, soft snow, so the roads were very bad, and when food must be had, or his babies would have nothing to eat. So the father started with his wagon to the store, twenty miles away. He was a long time getting there, for the road was so heavy.

Mr. Brown loaded his wagon, and started back; but a tremendous fall of snow came, and when he got home, he found his father had not returned. The storm continued several days. The father was staggered as best he could, but it grew colder and colder. He began to be chilled through. Nobody knew what finally happened to him in those awful hours, or what he thought about. For he never came home. When the storm cleared away, and people went to look for him, they found him frozen stiff and dead in the road. His wife was dead, and his children had been left at home alone to wait till he came back with the provisions. What had become of them, poor babies? It had not been so very cold when Mr. Brown came back. They went to bed, and to sleep, and still the father was not there next morning. They began to get hungry as the day wore on; but another night passed, and the next morning they were hungry indeed. They thought they would go out and try to find some food. When they were dressed, but they were not. They wandered into the woods. Shep after them. It was Sunday morning when they left their cabin. They walked and walked, and cried bitterly; but no papa came. Shep hugged as close to them as he could. There were wild animals in the woods that day, and they were attacked and devoured the helpless babies, only for Shep. He was as brave as a lion and faithful as a father. Worn out at last when darkness came, they huddled down against Shep's warm coat and lay there. It is the greatest wonder they did not die with the cold; but they did not. Toward morning it became warmer and began to rain. How the poor things suffered when morning came! They had no hope and no refuge but Shep. They hugged him, and cried together. They called till they could shout no longer, but nobody came. At last, the younger brother said:

"Tommy, O Tommy, I'm freezing to death!" Then what do you think this brave, tender big brother did?—big brother, though he was only six years old. He took his own coat off, and the warm garment he had, and wrapped it around the younger child. The rain poured in torrents, and Tommy had nothing upon his shoulders but a cotton shirt; but he bore it all, and pulled the coat close about his baby brother. There is not the least doubt the little fellow would have frozen to death but for this. So at last the neighbors found them close together. Tommy, the small brother, and Shep. A few hours more, and both the children would have been dead. But how much the kind-hearted people made over them, when they did discover them! There was hardly any thing good enough for those two whom the storm had left fatherless. They will find plenty of friends now. But Tommy Brown is the bravest, noblest little lad I have heard of in many a day. He is one of the heroes of the world.—*N. W. Christian Advocate.*

CANDY-MAKING.

Facts of Interest to Our Young Readers Concerning This Vast Industry.

How many of the boys and girls who read the *Christian Union* know or even think what a vast industry candy-making is in this country? An article recently published in *Harper's Monthly*, written by Mr. R. R. Bowker, tells us many interesting facts. In 1880 there were in the United States 13,692 confectioners. In New York City alone there are at the present time seven hundred confectioners who employ boys and girls as well as men and women are employed. It is said that people employed in candy factories are not fond of candy—rarely taste it after the first few days. Stick candy is made by boiling down, with water, letter A sugar. Cream of tartar is added to prevent crystallization. When it has reached the proper consistency it is kneaded like bread on a marble table, when the flavoring and the coloring matter are added. It is then "pulled," as you have frequently seen molasses candy when passing a confectioner's window. After it has been thoroughly worked and drawn into long sticks of the proper thickness, it is cut off by large shears into the length of the penny sticks which you buy.

Mr. Bowker in his article tells us that—

Lozenges are rolled out like pie-crust, sometimes printed in carmine with a hand-stamp, and then cut out with dies. Sugar-plums and sugared almonds are made in a very interesting way, by throwing the nut, seed, or other nucleus with boiling sugar into great copper pans, which are shaken by hand, or revolved by machinery over a steam boiler. Rolled over and over in the moist sugar, the plums soon begin to grow, and are polished and dried in the sun. Gum-drops are made of gum-arabic and sugar, boiled and mixed, seven or eight hundred pounds at a time, in huge copper steam-kettles, whence the mixture is taken out into smaller kettles to be flavored and colored. The cheap gum drops and "marsh-mallows" are now made chiefly of gelatin.

Glucose is made from starch, and is much cheaper than sugar, but is not nearly so sweet. If you should eat a piece of pure sugar candy, and then candy made principally of glucose, you would readily detect the difference. Glucose is a very strong and healthy tonic, and is used in the manufacture of marsh-mallows, and *terracotta alba* into cheap lozenges. Plaster-of-Paris molds are used to form the cream candies having various devices and shapes. The sugar cream is poured, while hot, into the little molds that have been powdered with starch, and are then placed in a very hot room to dry.

Mr. Bowker says:—

"Cream or soft candies are made in a simple way, from sugar mixed with cream of tartar to prevent crystallizing. To give them their fancy forms, a flat tray is filled with starch, which is heated to a temperature of 150° F. The plaster-of-Paris molds—a drop, hand, face, berry, or what it may be—arranged on a long stick. Into this the hot cream is poured, and then allowed to dry. Some factories have as much as fifty thousand pounds of starch in this state. The drying room is kept at a high temperature, in which the cream soon assumes dryness. They are then separated from the starch by huge sieves. If they are to be glossed, they are placed in huge pans, where a quantity of sugar poured over them to stand over night. In the morning the ice of sugar on top is broken, and the cream is separated with the crystals. The figure drops are a very curious product, and are coated with brandy or flavored water, and is poured into the starch molds. As it cools at the top and on the sides, the starch is removed, thus forming a shell, and the liquid within."

If you have a favorite candy store, you would better test a part of your next purchase for *terra alba*, a white clay that will not dissolve in water and is very injurious if taken into the stomach. Colored candies are sometimes poisonous, and green and blue candies should be avoided. There are safe vegetable coloring matters—burnt sugar for brown, saffron for yellow, cochineal for red. These are very cheap as the mineral colors that are used by many manufacturers.

Boys and girls who wish to make strong, active men and women eat sparingly of candy. It is bad for the teeth, and, if eaten shortly before meals, destroys the appetite for nourishing foods.—*Christian Union.*

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Glucose is made from starch, and is much cheaper than sugar, but is not nearly so sweet. If you should eat a piece of pure sugar candy, and then candy made principally of glucose, you would readily detect the difference. Glucose is a very strong and healthy tonic, and is used in the manufacture of marsh-mallows, and *terracotta alba* into cheap lozenges. Plaster-of-Paris molds are used to form the cream candies having various devices and shapes. The sugar cream is poured, while hot, into the little molds that have been powdered with starch, and are then placed in a very hot room to dry.

Mr. Bowker says:—

"Cream or soft candies are made in a simple way, from sugar mixed with cream of tartar to prevent crystallizing. To give them their fancy forms, a flat tray is filled with starch, which is heated to a temperature of 150° F. The plaster-of-Paris molds—a drop, hand, face, berry, or what it may be—arranged on a long stick. Into this the hot cream is poured, and then allowed to dry. Some factories have as much as fifty thousand pounds of starch in this state. The drying room is kept at a high temperature, in which the cream soon assumes dryness. They are then separated from the starch by huge sieves. If they are to be glossed, they are placed in huge pans, where a quantity of sugar poured over them to stand over night. In the morning the ice of sugar on top is broken, and the cream is separated with the crystals. The figure drops are a very curious product, and are coated with brandy or flavored water, and is poured into the starch molds. As it cools at the top and on the sides, the starch is removed, thus forming a shell, and the liquid within."

If you have a favorite candy store, you would better test a part of your next purchase for *terra alba*, a white clay that will not dissolve in water and is very injurious if taken into the stomach. Colored candies are sometimes poisonous, and green and blue candies should be avoided. There are safe vegetable coloring matters—burnt sugar for brown, saffron for yellow, cochineal for red. These are very cheap as the mineral colors that are used by many manufacturers.

PRETTY APRONS.

The Many Different Ways in Which They May Be Made.

Those of serim or congress canvas are very pretty. They can be made of any size to suit the taste of the wearer. Put a broad hem all around the four sides. Draw threads across the bottom, one space or several. If one broad space is made fill it in with narrow ribbons woven in and out in a sort of basket work. If several narrow spaces are preferred, use ribbon to run in the width of the spaces. Should the striped serim be used, it can be trimmed in various pretty ways. Ribbons can be run in the open work part of the stripe, and then along each side, crazy stitches may be put in with bright-colored silk. The ribbon which is drawn through the hem at the top. Pongee aprons are made which are much liked. A very tasteful one has a broad hem all around, and a cluster of tufts above the hem across the bottom. In the lower corners, above the hem, each some design of flowers in red, white, or carmine, or carmine wash well. Draw scarlet ribbon through the hem at the top to tie it with. This can be taken out before it is sent to the laundry. Another most convenient apron is made of pongee to be worn by one who is sewing or knitting. Get a yard of material, make a hem an inch and a half wide upon the top edge. Turn it down across the bottom in the opposite way from the sides and top. Then turn the bottom up a quarter of a yard, stitch the sides tight, and then put the three rows of stitching perpendicularly at equal distances from each other and from the edges. These will divide it into compartments into which can be dropped thread, scissors, etc., when working. A little design etched upon the center of each of these will add much to the beauty of the apron. Linen can be made up in the same way. A finish of tureen lace across the top of the turned up piece, when linen is used, is very effective. Aprons, etched and tied with bright ribbons, are very dainty for home wear. White linen, with a hem all around, and then strips of scarlet or blue stitched above, are very handsome. These strips may be made one wide or one or two narrow ones each side, or a number of narrow ones.—*N. E. Farmer.*

THRILLING SIGHTS.

Pennsylvania Natural Gas Wells Fired by Flashes of Lightning.

The burning of natural gas wells in Pennsylvania are sights as thrilling to the beholder as they are dangerous to adjacent property. Recently one of these wells took fire, and a volume of flame shot up into the air for several hundred feet with a velocity that was astounding, showing that the pressure of gas from beneath was something beyond comprehension. This well burned for a long time in spite of all efforts to shut off the flame. It was finally done by means of a huge extinguisher, which was advanced slowly to the mouth of the well and then raised vertically, thus shutting off the air and smothering the flame.

A few days since, one of these wells was set on fire in a very curious manner. The workmen had drilled down until gas in small quantities was found to arise through the boring. A sudden storm came up, the atmosphere became thick and prevented the gas from rising freely. The workmen anticipated trouble, and hastily departed from the well. They had scarcely gone when a distance when a flash of lightning ignited the gas in the atmosphere over the well; flames instantly communicated to the well itself, the result being that the gas in the lower regions was released, and shot upward with a terrific flame to a height of two hundred feet or more. The well burned for several days, the column of flaming gas mounting into the air and lighting up the surrounding country for miles. Another well was struck at the same time in another section of the oil regions, and was burning for a long time, threatening adjacent property. Fires occurring in the production of oil regions, whether gas or oil, are extremely difficult to extinguish, and the amount of property lost in consequence of them is immense.—*Fireman's Journal.*

Mr. Bowker in his article tells us that—

Lozenges are rolled out like pie-crust, sometimes printed in carmine with a hand-stamp, and then cut out with dies.